

**OFFICE OF CITY AUDITOR PRESENTATION  
TO THE  
SEATTLE CITY COUNCIL  
PARKS, EDUCATION & LIBRARIES COMMITTEE  
WEDNESDAY, FEBRUARY 27, 2002**

**ATHLETIC FIELD CAPACITY ANALYSIS**

Quantifying athletic field capacity is challenging due to the unique variables affecting each field. Field capacity is not constant and will vary throughout the year based on environmental conditions, field characteristics, and user group demands. The following variables must be considered when calculating field capacity:

- User Group (*Youth vs. Adult*)
- Field Lighting (*Lit vs. Unlit*)
- Field Surface (*Grass vs. All-weather*)
- Sport (*Field Configuration*)
- Weather
- Month of the Year
- Day of the Week
- Time of the Day
- Proximity to Schools
- Overlapping Fields
- Walk-On Play
- Field Maintenance/Construction

The attached analysis of two Department of Parks and Recreation athletic fields illustrates the complexity of determining field capacity. Capacity is estimated for two fields, BF Day 1 and Lower Woodland 2, during the months of January and April in 2000. Capacity is calculated on the basis of "Blocks of Time" (scheduled event times) and "Days at Capacity" for the monthly period.

Five assumptions are made in the analysis:

1. The estimate for the "Blocks of Time" was calculated on the basis of each field's most frequently scheduled event time. BF Day 1's most frequently scheduled block of time was 2 hours. Lower Woodland 2's most frequently scheduled block of time was 1.5 hours.
2. "Total Capacity" is defined as a field with no usable blocks of time.
3. "PM Capacity" for BF Day 1 is defined as a field with no usable blocks of time from 3:00 to 8:00 p.m.
4. "PM Capacity" for Lower Woodland 2 is defined as a field with no usable blocks of time from 3:00 to 11:00 p.m.
5. "Near Capacity" is defined as a field with only one usable block of time remaining in the daily period.

Capacity analysis and optimizing the scheduling of athletic fields is complex, cumbersome and time-consuming without comprehensive field scheduling software. The Office of City Auditor's 2001 *Parks and Recreation Athletic Fields Review* recommends that Parks improve the efficiency of its field scheduling practices by enhancing its field scheduling software.

**FIELD NAME: Lower Woodland 2**  
**MONTH: January 2000**  
**FIELD SPECS: Youth and Adult / Lights / Sand/Sod**  
**Sport: Soccer**

	<b><u>Totals</u></b>	<b><u>Percent of Total Capacity</u></b>
<b><u>BLOCKS OF TIME (1.5 Hours)</u></b>		
TOTAL SCHEDULED BLOCKS:	136	45%
TOTAL UNSCHEDULED BLOCKS:		
<i>Unused Peak Blocks:</i>	28	10%
<i>Unused Non-Peak Blocks:</i>	136	45%
<b>TOTAL POSSIBLE BLOCKS OF TIME:</b>	<b>300</b>	<b>100%</b>

**FIELD CAPACITY**

**DAYS AT CAPACITY:**

<i>Days at Total Capacity :</i>	0	0%
<i>Days at PM Capacity (3-11 PM):</i>	12	39%
<i>Days at Near Capacity :</i>	0	0%
<b><i>TOTAL DAYS AT CAPACITY:</i></b>	<b>12</b>	<b>39%</b>

**DAYS WITH AVAILABLE CAPACITY:**

*(2-10 Blocks of Time Available)*

*Saturday, 1/1/00*

*Sunday, 1/2/00*

*Monday, 1/3/00*

*Friday, 1/7/00*

*Saturday, 1/8/00*

*Sunday, 1/9/00*

*Monday, 1/10/00*

*Friday, 1/14/00*

*Saturday, 1/15/00*

*Sunday, 1/16/00*

*Monday, 1/17/00*

*Friday, 1/21/00*

*Saturday, 1/22/00*

*Sunday, 1/23/00*

*Monday, 1/24/00*

*Friday, 1/28/00*

*Saturday, 1/29/00*

*Sunday, 1/30/00*

*Monday, 1/31/00*

***TOTAL DAYS WITH CAPACITY:***

	19	61%
<b>DAYS IN JANUARY</b>	<b>31</b>	<b>100%</b>